

P-4.8 Summarize the function of electrical safety components (including fuses, surge protectors, and breakers).

Revised Taxonomy Level 2.4 Summarize conceptual knowledge

Key Concepts

Fuse

Surge protector

Breaker

Physical science students did not address this concept

It is essential for students to

- ❖ Summarize the functioning of these devices based on the principles and mathematical relationships of electronics.

Assessment

The revised taxonomy verb summarize means “to abstract a general theme or major point” For this indicator, the major focus of assessment should be to insure that students have a deep conceptual understanding of potential difference, current, and resistance and power, and can apply those concepts to the functioning of familiar devices. Conceptual knowledge requires that students understand the interrelationships among the basic elements within a larger structure that enable them to function together. In this case, that students understand the effect that each of the electronic variables has on the functioning of these devices.